

The diagram illustrates a closed-loop system for a fuel cell stack (14) with three sections: ANODE (16), CATHODE (18), and COOLER (20). The system is housed within a chamber (64) with a VENT (68) at the top. Air (22) is drawn in through a filter (23) and a pump (25), then passes through a control unit (26) and a valve (27) before entering the COOLER (20). From the COOLER, the air flows through a heat exchanger (30) and a valve (31) into the CATHODE (18). The air then passes through a filter (32) and a pump (33) before exiting through a VENT (68). Hydrogen (25) is supplied to the ANODE (16) and passes through a control unit (26) and a valve (27) before entering the ANODE. The hydrogen then passes through a heat exchanger (30) and a valve (31) before exiting through a VENT (68). The system also includes a COOLER (34) and a pump (35) for the hydrogen loop, and a COOLER (36) and a pump (37) for the air loop. A DRAIN (70) is located at the bottom right of the chamber.

FIG.2

ENERGY/ FRACTION (OF 1.6kg) OF H₂ CONSUMED TO KEEP CSA AT 5 °C

